

## DOCUMENT RESUME

ED 052 920

RE 003 817

AUTHOR Underwood, M. Hope  
TITLE Environmental Factors that Influence Achievement in a Reading Improvement Program.  
INSTITUTION Wisconsin State Univ., Whitewater.  
BUREAU NO BR-6-2728-47  
PUB DATE Nov 69  
GRANT OEG-3-6-062728-2129  
NOTE 56p.  
  
EDRS PRICE EDRS Price MF-\$0.65 HC-\$3.29  
DESCRIPTORS Behavior Patterns, Diagnostic Tests, \*Environmental Influences, \*Measurement Instruments, Parent Attitudes, \*Reading Difficulty, \*Reading Research, Self Concept, \*Self Concept Tests, Teacher Education Curriculum

### ABSTRACT

Environmental factors which influence reading performance of disabled readers are explored. The author first surveyed related literature and selected the following significant environmental factors: self-esteem, parental attitudes and behavior, and overt classroom behavior of children, ages 7 to 12. The Parent Attitude Research Instrument, Parent Interview Form, Self-Esteem Inventory, Soares and Soares Self-Concept Instruments, and Children's Behavior Questionnaire were then selected to measure each of these factors. The instruments were assessed, and it was found that they could be used within a reading improvement program to add to a diagnostic battery of tests to give evidence on environmental factors in influencing reading. The last part of the report deals with how these instruments could be used in a reading improvement program and how the use would change the present masters of science program in education-reading at Whitewater State University. A bibliography and appendixes of test forms are included. (AW)

ED052920

BR 62728-47

RE

47  
WSU-CORD



## The Wisconsin State Universities Consortium of Research Development

### Research Report

ENVIRONMENTAL FACTORS THAT INFLUENCE ACHIEVEMENT IN A  
READING IMPROVEMENT PROGRAM

U. S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE  
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE  
PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS  
STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION  
POSITION OR POLICY.

M. Hope Underwood  
Wisconsin State University - Whitewater  
Whitewater, Wisconsin

### Cooperative Research

Wisconsin State Universities  
and the  
United States Office of Education  
Bureau of Research - Higher Education

Office of the Director WSU-CORD  
240 Main Building  
Wisconsin State University  
Stevens Point, Wisconsin 54481

817

RE 003

ED052920

FINAL REPORT

CORD Project

Project No. 760-541-70-1007-06  
Grant No. 3-6-062728-2129  
Local Project No. 47

ENVIRONMENTAL FACTORS THAT INFLUENCE ACHIEVEMENT  
IN A READING IMPROVEMENT PROGRAM

M. Hope Underwood

Wisconsin State University - Whitewater  
Whitewater, Wisconsin

November, 1969

U.S. DEPARTMENT OF  
HEALTH, EDUCATION, AND WELFARE  
Office of Education  
Bureau of Research

FINAL REPORT

CORD Project

ENVIRONMENTAL FACTORS THAT INFLUENCE ACHIEVEMENT  
IN A READING IMPROVEMENT PROGRAM

M. Hope Underwood

Wisconsin State University - Whitewater

Whitewater, Wisconsin

November, 1969

The research reported herein was performed pursuant to a Wisconsin CORD grant with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgement in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U.S. DEPARTMENT OF

HEALTH, EDUCATION AND WELFARE

Office of Education

Bureau of Research

## SUMMARY

This study explores environmental factors which influence reading performance of disabled readers. It identifies instruments that can be used to measure significant environmental factors--self-esteem, parental attitudes and overt classroom behavior of children, ages seven to twelve. These instruments were assessed and methods for their use within a University training program designed to train Reading Specialists are discussed.

## TABLE OF CONTENTS

	Page
SUMMARY . . . . .	i
TABLE OF CONTENTS . . . . .	11
CHAPTER	
1. INTRODUCTION . . . . .	1
2. METHODS . . . . .	9
3. FINDINGS AND ANALYSIS . . . . .	13
4. CONCLUSIONS AND RECOMMENDATIONS . . . . .	18
REFERENCES . . . . .	21
APPENDICES	
A. MOTHER'S QUESTIONNAIRE . . . . .	26
B. PARENT INTERVIEW FORM . . . . .	32
C. SELF-ESTEEM INVENTORY . . . . .	37
D. SELF-CONCEPT . . . . .	40
E. CHILDREN BEHAVIOR QUESTIONNAIRE . . . . .	50
F. MASTER OF SCIENCE IN EDUCATION-READING . . . . .	51

## CHAPTER I

### INTRODUCTION

#### Purpose of the Study

The purpose of this study was to develop techniques for examining the influence of environmental factors on achievement in a reading improvement program and to develop methods for incorporating these techniques into a training program for reading specialists.

#### Specific Objectives

Specifically, the objectives for this project were:

- (1) To survey the literature and select environmental factors relevant to success in reading.
- (2) To select instruments for measurement of these factors.
- (3) To investigate means to incorporate these techniques into the training program for graduate students in the Master of Science in Education-Reading program at Wisconsin State University-Whitewater.

#### Need for the Study

Research has shown that factors other than cognitive variables are related to success in remedial instruction. Yet most reading training programs continue to concentrate only on development of cognitive skills. Training for classroom teaching of most teachers has not included instruction in understanding the culturally disadvantaged. This deficit is particularly pertinent for teachers who will be working in Title I reading improvement programs established under the Elementary and Secondary Education Act of 1965. Attempts have been made to meet this deficit in NDEA Institutes for reading teachers; however, most of these programs centered their efforts on meeting the needs of the urban "inner core" populations.

The pupils with whom the reading teacher trainees at Wisconsin State University-Whitewater will be working are

from small town rural backgrounds. Generally the pupils who need remedial reading instruction fall into two categories: (1) those from large families who live in the countryside where housing costs are low in comparison to urban areas; and (2) those from Spanish-American families, former migrant workers who have settled in the community.

There is a need to incorporate in the Master's in Reading program at Wisconsin State University-Whitewater an understanding of the problems of these families in relation to reading performance, an improvement in the university students' attitudes toward the children from these types of families, and to develop the skills to work with these pupils and their families. The study focuses on meeting this need by developing a program for training graduate students to work with these families and the children within a reading program.

#### Review of Related Literature

It has long been known that the home environment affects the development of language proficiency and school achievement but only in recent years have educators systematically investigated this influence. Interest in environmental factors was spurred in the 1960's with the establishment of the Poverty Program. Considerable interest developed in children from disadvantaged families and the social factors which may influence their school achievement (Bloom, Davis & Hess, 1965; Deutsch, 1964).

There are no statistics available as to the amount of reading retardation within the disadvantaged groups over the United States until we receive data from the National Assessment Committee; in the meantime, various estimates have been given. For example, Deutsch (1965) states that by the time disadvantaged children reach junior high school, sixty per cent are retarded one to four years in reading. Deutsch accounts for this retardation by lack of appropriate language stimulation early in life, both in school and at home, making success in reading as well as other school activities progressively more difficult. Another investigator (Barton, 1963) says that children from economically, socially, and educationally disadvantaged families are found to be two or more years retarded in reading by the time they reach the seventh grade.

Recently studies have been made of poverty home environments as a means of understanding the factors which



influence the development of children. "Studies repeatedly show that the home is the single most important influence on the intellectual and emotional development of children, particularly in the preschool years." (Bloom, Davis and Hess, 1965, p. 69)

Rhodes (1967) says an ecological view of a child's reading disability directs attention to environmental conditions that may give rise to or intensify reading difficulties. "The fault lies not only in the child but also in the environment to which he reacts and which responds to his behavior."

Of the studies carried out recently in connection with reading achievement and socio-economic status of the family many point out the relationship between the two. A study of the total third grade population of nine classrooms in three schools (Hill and Giammatteo, 1963) showed a relationship between socio-economic status and reading comprehension and vocabulary.

Lovell and Woolsey (1964) studied reading achievement with reference to socio-economic status as based on occupational classification. They found a higher frequency of reading backwardness in the lower socio-economic group. And Sutton (1964) found that readiness for reading at the kindergarten level was associated with having parents from a relatively high socio-economic level and engaged in the professions.

Spache (1968, p. 243) in referring to cultural and socio-economic forces which influence reading performance says, "No matter what cultural or socioeconomic deprivations are present, they do not impinge equally upon all members of the group...research must now be implemented by efforts to identify the individual differences in motivation and self-identification within the group and to capitalize upon these differences or to modify them toward constructive educational goals."

Studies of the interaction of family relationships and reading achievement, as explored in the work of Barwich and Arbuckle (1962) and of Morrow and Wilson (1961), should eventually add more understanding in this area.

### Literature Related to the Selection of Environmental Factors for Study

A survey of the literature\* reveals that early studies of the influence of environmental factors on learning and school performance concentrated on such variables as the relationship between social class and school performance -(for example, Havighurst and Breese, 1947; Havighurst and Janke, 1944). Differential attitudes of parents, as well as other differences in families, in various social classes were investigated to determine what it is about social-class background that makes for differential school performance (see, for example, Stendler, 1951).

One area in which there has been considerable research is that of the consequences for child development of the differential disciplinary techniques used in different social classes. Hoffman and Hoffman (1964, p. 171) summarize as follows:

.... Generally, the research has shown that middle-class parents provide more warmth and are more likely to use reasoning, isolation, show of disappointment, or guilt-arousing appeals in disciplining the child. They are also likely to be more permissive about demands for attention from the child, sex behavior, aggression to parent, table manners, neatness and orderliness, noise, bedtime rules, and general obedience. Working-class parents are more likely to use ridicule, shouting, or physical punishment in disciplining the child, and to be generally more strictive (Bronfenbrenner, 1958; Kohn, 1963; Kohn and Carroll, 1960; Miller and Swanson, 1960; Sears, Maccoby, and Levin, 1957).

\* Grateful acknowledgement is made to Leonard Courtney, Ph.D., who obtained printouts from ERIC at Indiana University on research in reading on Social Influences and Cultural Factors and Attitudes and Opinions. These studies were at least one grade level from one to twelve inclusive from the years 1949 to 1968.

Attempts to account for these social differences have called attention to the higher intelligence and education of middle-class parents, and the fact that they are more exposed to the current expert opinion through their readings on child rearing (Bronfenbrenner, 1958). Kohn (1963) has suggested that the life conditions or the "classes" and the resulting parental values may provide a more basic explanation. Working-class parental values center more on conformity to external proscriptions (as do their occupational roles), while middleclass parental values center more on self-direction. Kohn believes that it is this value orientation which leads middle-class parents to seek out and accept expert opinion congruent with their goals.

Dave (1963) in an attempt to identify environmental variables related to educational achievement concluded that "it is what parents do in the home rather than their status characteristics which are most influential on the achievement of their children." Thurston *et. al.* (1969) found that there was very little difference between disabled and able readers with regard to their experiential backgrounds as related to their cultural environments. Where these researchers did find significant differences was in the area of parental attitudes. The relationship between parental attitudes and behavior and children's performance in school is only now being looked at systematically (for example, Hess and Shipman, 1965; MacDonald, 1963; Van Zandt, 1963), and shows promise of being a fruitful area for further study. On this basis, parental attitudes and behavior were selected for consideration in this project.

In considering child-rearing effects, a remarkably similar set of factors in parent-child relationships has emerged (Longstreth, 1968). Becker (1964) has delineated three relatively independent dimensions; restrictiveness-permissiveness, hostility-warmth, and anxious emotional involvement-calm detachment. Subsequently, three similar factors were delineated (namely, democracy-domination, acceptance-rejection, and indulgence-autonomy), and it was established by Coopersmith (1967) that these dimensions of parental attitudes and behavior were important antecedents of self-esteem.

Self-concept is seen as a major intermediary variable between parental attitudes and behavior and the child's performance in reading and other school tasks. On the one hand, the kinds of parental practices which promote desirable social behaviors seem also to promote a confident self-image in the child (Mussen, Conger and Kagan, 1969; Swift, 1964); and on the other hand, high self-esteem has been found to be positively related to academic accomplishment, and low self-esteem to academic and learning difficulties (Anderson, 1937, Bledsoe, 1964; Brown, Fuller and Richek, 1967; McNeil, 1964; Piers and Harris, 1964; Wattenberg and Clifford, 1964)..

Coopersmith (1967) found that children with high self-esteem

have confidence in their perceptions and judgments and believe that they can bring their efforts to a favorable resolution. Their favorable self-attitudes lead them to accept their own opinions and place credence and trust in their reactions and conclusions. This permits them to follow their own judgments...and to consider novel ideas...Among the factors that underlie and contribute to these actions are their lack of self-consciousness and their lack of preoccupations with personal problems... [this] permits them to consider and examine external issues.

Children with low self-esteem, on the other hand, lack trust in themselves and are apprehensive about expressing unpopular or unusual ideas. They do not wish to expose themselves..They are likely to live in the shadows of a social group...preferring the solitude of withdrawal above the interchange of participation. Among the factors that contribute to the withdrawal...are their marked self-consciousness and preoccupation with inner problems. This great awareness of themselves distracts them from attending to other persons and issues...

Considering the importance of self-concept as an intermediary variable, it was selected for investigation in this project.

It was also considered important to see whether classroom teachers could identify social behavior of children in such a way that it could be categorized and related both to self-concept and to school achievement and non-achievement.

Finding that factors other than cognitive variables are related to success in remedial instruction (Lytton, 1961, 1967), Lytton (1968) used case study methods to contrast the intellectual functioning, personality and home backgrounds of eight good and eight poor achievers (all boys) in remedial groups, matched for age and IQ. The poor achievers were distinguished by a considerably lower drive level in a reading task; a higher degree of disruptive anxiety; a personal history characterized by delayed speech development in infancy, a large number of physical illnesses, reading difficulties in other members of the family and, to a lesser extent, by a more adverse parent-child relationship. Of particular relevance here is his use of the Bowlby teacher's report from (Bowlby, 1956) for assessing children's behavior in the classroom.

#### Description of the Summer Reading Practicum at Wisconsin State University-Whitewater

This section of the report will include a description of the Summer Reading Practicum, a phase of the training program for graduate students in the Master of Science in Education-Reading program at Wisconsin State University-Whitewater.

The Practicum is designed to provide an opportunity for closely supervised graduate students to work with remedial pupils. It is the second phase of a sequence of courses in reading which provides the reading background for the Master of Sciences of Education Reading degree at Wisconsin State University-Whitewater. The first phase consists of Developmental Reading, Corrective Reading and Diagnosis of Reading Difficulties. The Practicum concentrates on learning materials, lesson plans, small group and tutorial teaching.

The Practicum operates in conjunction with the public schools in Whitewater. Two elementary schools are involved, and both have a reading specialist working in Title I reading programs, which have been in operation in Whitewater for only one year (the 1968-69 school year). Children in

these Title I programs who were identified as being able to profit by additional summer work were referred to the University reading practicum by the reading teachers. The families of 26 children volunteered to have their children attend the University practicum for four one-hour sessions a week for a period of six weeks during the summer of 1969. These children had had one school year of instruction in special reading classes. The pupils ages were from seven to thirteen.

There were 13 Wisconsin State University-Whitewater graduate students enrolled in the Practicum, and each worked with two pupils. All the graduate students had taught at least three years and some as many as fifteen years.



## CHAPTER II

### METHODS

#### Selection of Environmental Factors for Study

Based on the review of literature the following variables emerged as being significant to environmental factors related to reading that are to be investigated--self-esteem, parental attitude and overt pupils behavior within the classroom.

#### Selection of Instruments for Measurement of Variables

For measurement of parental behavior and attitudes, the Parent Attitude Research Instrument (PARI) (see Appendix A), developed by Bell and Schaefer (1958), was selected for use for the following reasons:

- (1) It has been widely used and analyzed (Becker and Krug, 1965; Bell and Schaefer, 1960; MacDonald, 1963; Yater et al.; Zuckerman, 1959; Zuckerman, Norton, and Sprague, 1958; Zuckerman, Ribback, Monashkin and Norton, 1958).
- (2) Factor analytic analysis of data resulting from the PARI suggest that underlying dimensions tapped by the PARI may reflect certain fairly consistent parental approaches to child-rearing (Schaefer and Bell, 1958; Yater et al., 1968; Zuckerman, Ribback, Monashkin and Norton, 1958). As mentioned earlier the three factors found to be the major underlying parental attitudinal and behavioral dimensions of the PARI-- (1) democracy-domination; (2) acceptance-rejection; and (3) indulgence-autonomy-- closely parallel the factors in parent-child relationships that have emerged in other studies of child-rearing effects, using other instruments.
- (3) Coopersmith (1967) has established that the dimensions of parental attitudes and behavior delineated in responses to the PARI are important antecedents of self-esteem.

A Parent Interview Form (see Appendix B), based on one developed by Otto and McMenemy (1956), was used to supplement the PARI in order to secure data from the parents on the child's health and physical development, environmental data, emotional and personality data, educational data, and data on selected parental characteristics.

Self-esteem defined as "a personal judgment of worthiness that is expressed in the attitudes the individual holds toward himself" (Coopersmith, 1967, p. 5) was measured by the Self-Esteem Inventory (SEI) (see Appendix C) an instrument developed by Coopersmith (1959). Coopersmith (1959, p. 87) pointed out when he began a major series of studies on self-esteem as a determinant of behavior; "Although self-esteem is generally assumed to be a major factor in determining behavior, there has been relatively little research directed towards clarifying its significance and dynamics." Coopersmith has gone a considerable way in closing this research hiatus.

#### Use of the Instruments in the Reading Practicum

In order to determine the feasibility of using these instruments with pupils with reading problems and their parents and to see whether graduate students could be trained to use them as a means of increasing their understanding of family and environmental factors in relation to reading, it was decided to introduce the instruments to the graduate students and to train them in their use, as a part of the Practicum training.

One day a week for the eight-week period of the Practicum is devoted to a seminar where such topics as working with parents and teachers, interview techniques, recent research on reading, initiating and operating a school reading program. It was during this seminar that the graduate students were introduced to the instruments and trained in their use.

#### Parent Interviews and the Parent Attitude Research Instrument (PARI)

Two seminar periods were given to review interview techniques, familiarize the graduate students with the interview form and the PARI. Parents were contacted and interviewed in their homes by the graduate students during



the fifth and sixth week of the eight-week Practicum. At the end of the interview with the mothers, each mother was asked to fill out the PARI. It took about twenty minutes to complete the PARI; and as the graduate student looked over his notes on the interview form to assure thoroughness, he was present to answer questions the mothers might have had about the PARI.

### Soares and Soares Self-Concept Instruments

During the fifth week of the Practicum the graduate students studied the Soares and Soares self-concept and reflected selves instrument. They were instructed to read the items to the pupils to assure comprehension. The instrument is comprised of five parts--self-concept, reflected self-parents, reflected self-classmates, reflected self-teacher, and ideal self-concept. One part was given each day; it took about ten minutes a day to complete each part.

Theory suggest that individual's self-esteem is based on how he thinks significant other persons in his environment view him. Soares and Soares (n.d.) have developed instruments to measure several types of self-perceptions: the self-concept (how the individual believes himself to be at the moment), the ideal concept (how he wishes he were or hopes to become) and various reflected selves (how he believes his parents, teacher, and classmates view him). These instruments were chosen for use in this study (see Appendix D).

### Self-Esteem Inventory (SEI)

After working with the Soares and Soares self-concept instrument, a question was raised about the validity of the instrument for use with children of this age. This is a recently-developed instrument which has been reported to have been used with disadvantaged children of the age range of pupils in the Practicum; however, there were some indications that children had problems comprehending some parts of the instrument.

A second measure of self-concept, the Self-Esteem Inventory (SEI), is being administered to these children this fall in order to compare the utility and discriminating power of the two instruments. (see Appendix C.)

### Children's Behavior Questionnaire (CBQ)

For a teacher assessment of children's classroom behavior, use of the Bowlby teacher report used by Lytton (1968) was considered; however, in personal correspondence with Lytton another instrument was recommended-- The Children's Behavior Questionnaire (CBQ) (see Appendix E). The CBQ was developed by Rutter (1967) and is designed to measure children who are designated as showing some disorder and of those children, those who show "neurotic" symptoms and those who are designated as "antisocial". This instrument was designed as a screening device or as a survey instrument. It is short, easy to fill out and has needed validity and reliability that other questionnaires do not have. It is designed for the 7-13 year old child of both sexes.

While the authors preferred the term 'psychiatric disorder' to more general descriptions such as behavioral deviance (Rutter and Graham, 1966), the instrument is used in this study to determine the relationship between overt behavior in the classroom and the incidence of reading problems. Therefore, we are not so concerned with the diagnostic distinction between "neurotic" and "anti-social" as we are with the total scale and those with a score of 9 or more.

As the Children's Behavior Questionnaire is to be filled out by the classroom teacher, it was not administered until October 20-25, 1969, several weeks after the start of the school year. These dates were set six weeks after the beginning of the school term and right before the first marking period since it was felt that this was an optimal time for the teacher to describe the classroom behavior of the pupils. The child was in the classroom long enough so the teacher had an adequate sample of the pupil's behavior and, too, the teacher was consciously evaluating the pupils for the first marking period.

### CHAPTER III

#### FINDINGS AND ANALYSIS

##### Assessment of the Instruments

In this part of the report assessment of the instruments will be discussed. The criteria on which judgments were made regarding the instruments were:

- (1) Time to complete them was reasonable (ten to twenty minutes).
- (2) Could children aged 7 to 13 understand them? Could parents understand them?
- (3) Could graduate students enrolled in a reading program be taught to administer them?
- (4) Did they produce the kinds of information we were looking for?

Considering the limitations of this study due primarily to the time factor involved, only partial answers could be expected. It is planned that a more intensive, controlled study will be conducted using these instruments to answer the more specific questions, particularly whether the instruments can elicit the kinds of information needed to help teachers understand and work with children with reading problems and their families, in Title I programs.

##### Soares and Soares Self-Concept and Reflected Selves

###### (1) Time required for administration:

During the summer one part was given each day. Experimentation with administering the five scales at one sitting proved to be more economical in time as it took only 15-20 minutes and the pupils found it easier to respond since they became familiar with the 20 traits which were on each scale.

(2) Children's understanding of the instrument:

Even though the items from this instrument were read to the children by the reading teacher or researcher, some children had trouble understanding the meaning of some terms, such as "I am masculine-I am feminine", one of the 20 pairs of bi-polar traits.

(3) Administration of instrument by graduate students:

Graduate students found this instrument difficult to administer because of some of the problems described above. Some of these problems could be corrected by specific labeling of sections of the continuum on the scales and by simplifying some of the terms used.

(4) Instrument producing the information needed:

To adapt the Soares and Soares measurement of self-concept and reflected selves to an understanding of the significant people that influence his concept of himself in relation to reading, it would be advisable to add a part on brothers and sisters. The same bi-polar traits would be kept except for changing the sentence to read: "My brother and sister think I am ....".

Parent Interviews

(1) Time required for administration:

The Case History Record suggested by Otto and McMenemy (1966) took two hours or more for a graduate student to interview the parents. In developing the shorter Parent Interview Form, the object was to retain those features in the Case History which pertained to a better understanding of a reading disability. A second objective was to reduce the interview to about one hour. The Parent Interview Form meets these objectives.

(2) Parents understanding of the interview questions:

No problems were encountered with the parents understanding the interview form.

(3) Graduate students use of the interview form:

With a short review on interviewing techniques and training with the giving of the Parent Interview Form, the graduate students had no major troubles.

(4) Instrument producing information needed:

The Parent Interview Form seems to be adequate; however, a more definitive statement to this fact will be forthcoming with the completion of the planned study.

Parent Attitude Research Instrument (PARI)

(1) Time required to administer:

One of the useful features about the PARI is that it only takes about twenty minutes to complete.

(2) Parents understanding of the instrument:

Most of the parents understood the PARI and those English speaking mothers could ask for an explanation where one is needed. To use the PARI with Spanish-American mothers it would be highly desirable to have a Spanish-American translator present.

(3) Graduate students use of the PARI:

With a review of the psychological principles behind the PARI and clear directions on the administration of the PARI the graduate students had no trouble answering the questions parents would have about the PARI.

(4) Instrument producing the information needed:

The PARI seems to be producing evidence of attitudes on child rearing practices.

Self-Esteem Inventory (SEI)

(1) Time required to administer:

Although this instrument has not been used as of yet it is estimated that it will take from fifteen to twenty minutes.

(2) Children's understanding of the instrument:

When Coopersmith (1967) designed the instrument he reworded items selected from the Rogers and Dymona (1954) scale for use with children age 8 to 10. The items seem to be of the kind children would understand.

(3) Administration of the instrument by graduate students:

No problem is anticipated.

(4) Instrument producing information needed:

Coopersmith (1967) finds the test-retest validity to be .88 after a five-week interval and .70 after a three-year interval using fifth grade children. The SEI appears to be less ambiguous than the Soares and Soares.

Childrens Behavior Questionnaire (CBQ)

(1) Time required to administer:

Teachers can complete this twenty-five item check list in fifteen minutes or less.

(2) Teachers' understanding of the instrument:

No highly technical terms are used and most teachers can complete the form without trouble.

(3) Administration of the instrument by graduate students:

It takes a short time to interpret and explain the scoring system to graduate students in reading. They should have little trouble with the survey instrument.

(4) Instrument producing information needed:

Results of the reliability of this instrument came from England and it has .89 test-retest reliability with 7-year-old children at a two month interval. In about ninety per cent of anti-social children and 80 per cent of neurotic children, the questionnaire diagnoses and a clinical diagnoses were in agreement. These children were diagnosed at Maudsley Hospital Childrens' Department in London. However, a pilot study used to help validate the scoring of the CBQ was conducted in Aberdeen, New York and it also bore out a high validity.

Summary of Instruments Used

For the most part the instruments described above could be used within a reading improvement program to add to a diagnostic battery of tests in order to give evidence on environmental factors influencing reading. They seem to adequately meet the criteria set up for their usefulness.



## CHAPTER IV

### CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to develop techniques for examining the influence of environmental factors on achievement in reading improvement program and to develop methods for incorporating these techniques into a training program for reading specialists. This section of the report will discuss how the instruments described can be used in a reading improvement program and how their use will change the present Masters of Science in Education-Reading at Whitewater State University.

By incorporating tests measuring environmental factors that effect reading into diagnostic reading battery that reading teachers use to diagnose reading problems of youngsters, that they will work with during their program, reading teachers should more adequately meet the needs of Title I programs and approach reading difficulties on a broader scope. Besides meeting the cognitive variable, by using these tests it is hoped that teachers become aware of the non-cognitive factors influencing reading and by being consciously aware of them build them into their reading objectives. The relationship between teaching objectives and test results is well known, and teachers, alerted to children with poor self-concepts, can build into their programs lessons in reading designed to help build the self-esteem of children. For example, a child found to have a low self-concept as seen by his classmates could have special reading projects prepared by him in the reading classes to demonstrate in his classroom.

By the same token, by understanding parental attitudes, teachers can best involve parents in their reading programs and begin to reinforce their class objectives at the home front. One such technique that suggested itself by use of the PARI with Spanish-American speaking parents was to have one interested Spanish speaking parent present when the home interview took place.

One of the next steps to follow in the Whitewater University program is to build suggested plans to involve parents and class activities which enhance self-concepts.



## Recommendations for Wisconsin State University Whitewater Master of Science in Education-Reading Program

Included in Appendix F are the specific course requirements for the Master of Science in Education-Reading at Wisconsin State University-Whitewater. As a result of this study, "Environmental Factors That Influence Achievement in a Reading Improvement Program," revisions in the degree requirements are suggested. Two types of revisions are being planned for. First, the more immediate revision for the summer of 1970 and second, a more extensive course additions for the degree program.

### The immediate revisions for the summer of 1970

It has been demonstrated that the instruments described in this report can be used in a summer Practicum of a reading program to point out the significance of environmental factors influence upon the reading process. In the summer Practicum of 1970 the scoring and theoretical background will be elaborated. To go into environmental factors in much more depth it is planned to involve faculty members from departments outside of education, especially sociology, to discuss rural and urban family problems; social welfare, to discuss family education and the Foreign Language department for educational problems of linguistic minorities: Spanish speaking Americans. Two objectives are hoped to be met by this approach. One, immediate insight into non-cognitive variables and two, demonstration that present day educational problems are best met with a team approach.

### Course revisions for the Master of Science in Education-Reading

One of the most significant outcomes of this study was the evidence that experienced teachers enrolled in a Masters degree program who were expected to eventually work with children from educationally disadvantaged backgrounds lacked insight into the problems of these groups. On the other hand, this fact need not be surprising since most of these teachers were trained before 1960 and as Harris (1968, p. 166) points out, "Research on the psychology and education of disadvantaged children dates mainly from 1960; few relevant publications appeared earlier than 1962."

To provide a broader background for understanding basic concepts and attitudes needed for working with

children from educationally disadvantaged backgrounds several courses are being introduced into the Master of Science in Education-Reading curriculum at Wisconsin State University-Whitewater. Among these courses are:

Sociology:

- 611 American Social Institutions
- 555 Sociology of the Family
- 655 The Family in Cultural Perspective

Speech:

- 531 Communication Theories

Educational Foundations:

- 543 Education in the Urban Society
- 550 Introduction to Guidance and Counseling
- 551 Procedures in Guidance and Counseling
- 608 Significant Issues in Education

Special Education:

- 564 Learning and Language Disorders

Foreign Language:

- 510 Introduction to Descriptive Linguistics

With an individually planned sequence of courses from the revised curriculum, the graduate student would come to the Practicum better prepared to handle the instruments used to assess environmental factors in relation to reading and to provide the needed leadership expected from Reading Specialists within a school system.

## REFERENCES

Anderson, H. H. Domination and integration in the social behavior of young children in an experimental play situation. Genet. Psychol. Monogr., 1937, 19, pp. 341-408.

Barton, Allen H. Reading research and its communication; the Columbia-Carnegie Project. In Reading as an Intellectual Activity. Figurel, J. Allen (ed.) International Reading Association Conference Proceedings, VIII, 1963, pp. 246-50.

Barwich, Janice M. and Arbuckle, Dugald S. A study of the relationship between parental acceptance and the academic achievement of adolescents. Journal of Educational Research, LVI, 1962, pp. 148-151.

Becker, W. C. Consequences of different kinds of parental discipline. In Review of Child Development and Research, Hoffman, M. L. and Hoffman, Lois W. (eds.). New York: 1964 Russell Sage Foundation, pp. 169-208.

Becker, W. and Krug, R. The parent attitude research instrument: a research review. Child Development, 1965, 36, pp. 329-366.

Bell, R. Q. and Schaefer, E. S. Informal notes on the use of the PARI. Bethesda, Md. National Institute of Mental Health, 1960 (Mimeo).

Bledsoe, J. C. Self-concepts of children and their intelligence, achievements, interests, and anxiety. J. Indiv. Psychol., 1964, 20, pp. 55-58.

Bloom, Benjamin S., Davis, Allison and Hess, Robert. Compensatory Education for Cultural Deprivation, New York: Holt, Rinehart and Winston, Inc., 1965.

Bowlby, J. et. al. Effects of mother-child separation: a follow-up study. Brit. J. Med. Psychol., 1956, 29, pp. 211-247.

Bronfenbrenner, U. Socialization and social class through time and space. In Reading in Social Psychology, Maccoby, E. E., Newcomb, T. M., and Hartley, E. L. (eds.), New York: Holt, 1958, pp. 400-425.

Brown, O. H., Fuller, F. F. and Richek, H. G. A comparison of self-perceptions of prospective elementary and secondary school teachers. Psychol. Sch., 1967, 4, pp. 21-24.

Coopersmith, Stanley. A method for determining types of self-esteem. J. of Abnormal Soc. Psych., 1959, 59, pp. 87-94.

Coopersmith, Stanley. The Antecedents of Self-Esteem, San Francisco, W. H. Freeman & Co., 1967.

Dave, R. H. The identification and measurement of environmental process variables that are related to educational achievement. Unpublished doctoral dissertation, University of Chicago, 1963. Abstracted in: Bloom, Davis and Hess, Compensatory Education for Cultural Deprivation.

Deutsch. The disadvantaged child and the learning process. In Mental Health of the Poor, Riessman, Frank, Cohen, Jerome, and Pearl, Arthur (eds.), New York: The Free Press, 1964, pp. 172-187.

Harris, Albert J. Diagnosis and remedial instruction in reading. In Innovation and Change in Reading Instruction, Robinson, Helen M. (ed.) 67th yearbook of the National Society for the Study of Education, Part II. Chicago: University of Chicago Press, 1968, pp. 159-194.

Havighurst, R. J. and Breese, F. H. Relation between ability and social status in a midwestern community. III Primary mental abilities. J. Educ. Psychol., 1947, 38, pp. 241-247.

Havighurst, R. J. and Janke, L. L. Relations between ability and social status in a midwestern community. I. Ten-year-old children. J. Educ. Psychol., 1944, 35, pp. 357-368.

Hess, R. D. and Shipman, V. C. Early experiences and the socialization of cognitive modes in children. Child Development, 1965, 36, No. 4, pp. 869-886.

Hill, E. H. and Giammalteo, M. C. Socio-economic status and its relation to school achievement in the elementary school. Elementary English, 1963, 40, pp. 265-270.

Hoffman, Martin L. and Hoffman, Lois (eds.) Review of Child Development Research, Russell Sage Foundation, New York, 1964.

Kohn, M. L. Social class and parent-child relationship: an interpretation. Amer. J. Sociol., 1963, 68, pp. 471-480.

Kohn, M. L. and Carroll, E. E. Social class and the allocation of parental responsibilities. Sociometry, 1960, 23, pp. 372-392.

Longstreth, Langdon E. Psychological Development of the Child The Ronald Press Company, New York, 1968.

Lovell, K. and Woolsey, M. E. Reading disability, non-verbal, reasoning, and social class. British Journal of Educational Research, 1964, 6, pp. 226-227.

Lytton, H. An experiment in selection for remedial education. Brit. J. Educ. Psychol., 1961, 31, pp. 79-94.

Lytton, H. Follow-up of an experiment in selection for remedial education. Brit. J. Educ. Psychol., 1967, 37, pp. 1-9.

Lytton, H. Some psychological and sociological characteristics of "good" and "poor achievers" (boys) in remedial reading groups: Clinical case studies. Human Development, Vol. 11, No. 4, 1968, pp. 260-276.

MacDonald, Dorothy P. An investigation of the attitudes of parents of unsuccessful and successful readers. Journal of Educational Research, 1963, 56, pp. 437-38.

McNeil, J. D. Programmed instruction versus usual classroom procedures in teaching boys to read. Amer. Educ. Res. J., 1964, 1, pp. 113-119.

Miller, D. R. and Swanson, G. E. Inner Conflict and Defense, New York, Holt, 1960.

Morrow, William R. and Wilson, Robert C. Family relations of bright high - Achieving and under-achieving high school boys. Child Development, XXXII, 1961, pp. 501-510.

Mussen, P. H., Conger, J. J., and Kagan, Jerome. Child Development and Personality, Third Edition, New York: Harper and Row, Publishers, 1969.

Otto, Wayne and McMenemy, Richard A. Corrective and Remedial Teaching, Houghton Mifflin Company, Boston, 1966.

Piers, E. V. and Harris, D. B. Age and other correlates of self-concept in children. J. Educ. Psychol., 1964, 55, pp. 91-95.

Rhodes, W. C. The disturbing child: a problem of ecological management. Exceptional Children, 1967, 33, pp. 449-55.

Rogers, C. R. and Dymond, R.(eds) Psychotherapy and Personality Change: Coordinated Studies in the Client-Centered Approach Chicago, University of Chicago Press, 1954.

Rutter, Michael. A children's behavior questionnaire for completion by teachers: Preliminary findings. J. Child Psycho. Psychiat., Vol. 8, 1967.

- Rutter, M. and Graham, P., Psychiatric disorder in ten-and eleven-year-old children. Proc. R. Soc. Med., 1966, 59, pp. 382-387.
- Sears, R. R., Maccoby, E. E. and Levin, H. Patterns of Child Rearing. Evanston, Ill. Row, Peterson, 1957.
- Schaefer, E. S. and Bell, R. Q. Development of a parental attitude research instrument. Child Development, 1958, 29, pp. 339-361.
- Soares, Anthony T. and Soares, Louise M. Self-Perceptions of Culturally Disadvantaged Children, unpublished paper, n.d.
- Spache, George D. Contributions of allied fields to the teaching of reading. In Innovation and Change in Reading Instruction, Robinson, Helen M. (ed.) National Society for the Study of Education, Chicago, Part II, LXVII, 1968, pp. 237-290.
- Stendler, C. B. Social class differences in parental attitudes toward school at grade I level. Child Development, 1951, 22, pp. 36-46.
- Strang, Ruth. Reading diagnosis and remediation. International Reading Association Research Fund, Newark, Delaware, 1968.
- Sutton, M. H. Readiness for reading at the kindergarten level The Reading Teacher, 1964, 17, pp. 234-240.
- Swift, J. W. Effects of early group experience: The nursery and day nursery. In Review of Child Development, Hoffman, M. L., Hoffman, L. W. (eds.), Vol. I., New York: Russell Sage Foundation, 1964, pp. 249-288.
- Thurston, Catherine E., Williams, Charlotte, Callaway, Bryon, Pool, Lydia B. and Hodges, Kathleen M. Cultural background study in relation to reading ability. In Reading and Realism, Figurel, J. Allen (ed.) Vol. 13, Part I, Proceedings of the Thirteenth Annual Convention, IRA, Newark, Delaware, 1969.
- Van Zandt, Wayne. A study of some home-family-community factors related to children's achievement in reading in an elementary school. Unpublished, Ph.D. Wayne State University, 1963.
- Wattenberg, William W. and Clifford, Clare. Relation of self-concepts to beginning achievement in reading. Child Development, 1964, 35, pp. 461-467.
- Yater, A., Oliver, K. and Barclay, A. Factor analytic study of PARI responses of mothers of head start children. Psychological Reports, 22, pp. 383-388.



Zuckerman, M. Revised scales to control acquiescence response set in the PARI. Child Development, 1959, 30, pp. 523-532.

Zuckerman, M., Norton, J., and Sprague, D. Acquiescence and extreme sets and their role in tests of authoritarianism and parental attitudes. Psychiatric Research Reports, 1958, 10, pp. 28-45.

Zuckerman, M., Ribback, B. B., Monashkin, I., and Norton, H. A., Jr. Normative data and factor analysis on the parental attitude research instrument. Journal of Consulting Psychology, 1958, 22, pp. 165-172.

## APPENDIX A

### MOTHERS' QUESTIONNAIRE

**DIRECTIONS:** Indicate your opinion by drawing a circle around the "A" if you strongly agree, around the "a" if you mildly agree, around the "d" if you mildly disagree, and around the "D" if you strongly disagree. If you have any ideas which you feel should be included jot them down at the end. We would appreciate having them. Others who have given us their ideas say that it is best to work rapidly. Give your first reaction. If you read and re-read the statements, it tends to be confusing and time-consuming.

There are no right or wrong answers, so answer according to your own opinion. It is very important to the study that all questions be answered. Many of the statements will seem alike but all are necessary to show slight differences of opinion.

	AGREE		DISAGREE	
1. Children should be allowed to disagree with their parents if they feel their own ideas are better.	A	a	d	D
2. It's best for the child if he never gets started wondering whether his mother's views are right.	A	a	d	D
3. Parents should adjust to the children some rather than always expecting the children to adjust to the parents.	A	a	d	D
4. Parents must earn the respect of their children by the way they act.	A	a	d	D
5. Children would be happier and better behaved if parents would show an interest in their affairs.	A	a	d	D
6. Some children are just so bad they must be taught to fear adults for their own good.	A	a	d	D
7. Children will get on any woman's nerves if she has to be with them all day.	A	a	d	D
8. One of the worst things about taking care of a home is a woman feels that she can't get out.	A	a	d	D
9. If you let children talk about their troubles they end up complaining even more.	A	a	d	D
10. There is nothing worse for a young mother than being alone while going through her first experience with a baby.	A	a	d	D



11.	Most children are toilet trained by 15 months of age.	A	a	d	D
12.	The sooner a child learns to walk the better he's trained.	A	a	d	D
13.	A child will be grateful later for strict training.	A	a	d	D
14.	A mother should make it her business to know everything her children are thinking.	A	a	d	D
15.	A good mother should shelter her child from life's little difficulties.	A	a	d	D
16.	There are so many things a child has to learn in life there is no excuse for him sitting around with time on his hands.	A	a	d	D
17.	Children should be encouraged to tell their parents about it whenever they feel family rules are unreasonable.	A	a	d	D
18.	A parent should never be made to look wrong in a child's eyes.	A	a	d	D
19.	Children are too often asked to do all the compromising and adjustment and that is not fair.	A	a	d	D
20.	As much as is reasonable, a parent should try to treat a child as an equal.	A	a	d	D
21.	Parents who are interested in hearing about their children's parties, dates and fun help them grow up right.	A	a	d	D
22.	It is frequently necessary to drive the mischief out of a child before he will behave.	A	a	d	D
23.	Mothers very often feel that they can't stand their children a moment longer.	A	a	d	D
24.	Having to be with children all the time gives a woman the feeling her wings have been clipped.	A	a	d	D
25.	Parents who start a child talking about his worries don't realize that sometimes it's better to just leave well enough alone.	A	a	d	D
26.	It isn't fair that a woman has to bear just about all the burden of raising children by herself.	A	a	d	D

- |     |  |   |   |   |   |
|-----|--|---|---|---|---|
| 27. | The earlier a child is weaned from it's emotional ties to its parents the better it will handle it's own problems.                     | A | a | d | D |
| 28. | A child should be weaned away from the bottle or breast as soon as possible.   | A | a | d | D |
| 29. | Most young mothers are bothered more by the feeling of being shut up in the home than by anything else.                                | A | a | d | D |
| 30. | A child should never keep a secret from his parents.   | A | a | d | D |
| 31. | A child should be protected from jobs which might be too tiring or hard for him.   | A | a | d | D |
| 32. | Children who don't try hard for success will feel that they have missed out on things later on.  | A | a | d | D |
| 33. | A child has a right to his own point of view and ought to be allowed to express it.  | A | a | d | d |
| 34. | Children should never learn things outside the home which make them doubt their parents' ideas.  | A | a | d | D |
| 35. | There is no reason parents should have their own way all the time, any more than that children should have their own way all the time. | A | a | d | D |
| 36. | Children seldom express anything worthwhile; their ideas are usually unimportant.  | A | a | d | D |
| 37. | If parents would have fun with their children, the children would be more apt to take their advise.                                    | A | a | d | D |
| 38. | A wise parent will teach a child early just who is boss.   | A | a | d | D |
| 39. | It's a rare mother who can be sweet and even-tempered with her children all day.   | A | a | d | D |
| 40. | (Omitted)  |   |   |   |   |
| 41. | Children pester you with all their little upsets if you aren't careful from the first.   | A | a | d | D |
| 42. | A wise woman will do anything to avoid being by herself before and after a new baby.   | A | a | d | d |

43.	Children's grades in school are a reflection of the intelligence of their parents.	A	a	d	D
44.	It is more effective to punish a child for not doing well than to reward him for succeeding.	A	a	d	D
45.	Children who are held to firm rules grow up to be the best adults.	A	a	d	D
46.	An alert parent should try to learn all her child's thoughts.	A	a	d	D
47.	Children should be kept away from all hard jobs which might be discouraging.	A	a	d	D
48.	Parents should teach their children that the way to get ahead is to keep busy and not waste time.	A	a	d	D
49.	A child's ideas should be seriously considered in making family decisions.	A	a	d	D
50.	The child should not question the thinking of the parents.	A	a	d	D
51.	No child should ever set his will against that of his parents.	A	a	d	D
52.	Children should fear their parents to some degree.	A	a	d	D
53.	When you do things together, children feel close to you and can talk easier.	A	a	d	D
54.	Children need some of the natural meanness taken out of them.	A	a	d	D
55.	Raising children is a nerve-wracking job.	A	a	d	D
56.	One of the bad things about raising children is that you aren't free enough of the time to do just as you like.	A	a	d	D
57.	The trouble with giving attention to children's problems is they usually just make up a lot of stories to keep you interested.	A	a	d	D
58.	Most women need more time than they are given to rest up in the home after going through childbirth.	A	a	d	D

59.	A child never sets high enough standards for himself.	A	a	d	D
60.	When a child does something well we can start setting his sights higher.	A	a	d	D
61.	(Omitted)				
62.	It is a mother's duty to make sure she knows her child's innermost thought.	A	a	d	D
63.	I liked my child best when I could do everything for him.	A	a	d	D
64.	The sooner a child learns that a wasted minute is lost forever, the better off he will be.	A	a	d	D
65.	When a child is in trouble he ought to know he won't be punished for talking about it with his parents.	A	a	d	D
66.	Parents should be careful lest their children choose wrong friends.	A	a	d	D
67.	A child should always accept the decision of his parents.	A	a	d	D
68.	Children should do nothing without the consent of their parents.	A	a	d	D
69.	Children should have a say in the making of family plans.	A	a	d	D
70.	It is sometimes necessary for the parent to break the child's will.	A	a	d	D
71.	It's natural for a mother to "blow her top" when children are selfish and demanding.	A	a	d	D
72.	A young mother feels "held down" because there are lots of things she wants to do while she is young.	A	a	d	D
73.	Children should not annoy their parents with their unimportant problems.	A	a	d	D
74.	Taking care of a small baby is something that not woman should be expected to do all by herself.	A	a	d	D

- |     |   |   |   |   |   |
|-----|---|---|---|---|---|
| 75. | Some children don't realize how lucky they are to have parents setting high goals for them. | A | a | d | D |
| 76. | If a child is pushed into an activity before he is ready, he will learn that much easier.   | A | a | d | D |
| 77. | Unless one judges a child according to strict standards, he will not be industrious.        | A | a | d | D |
| 78. | It is a parent's business to know what a child is up to all the time.                       | A | a | d | D |
| 79. | Children are better off if their parents are around to tell them what to do all the time.   | A | a | d | D |
| 80. | A child should be rewarded for trying even if he does not succeed.                          | A | a | d | D |

# APPENDIX B

## PARENT INTERVIEW FORM

(Date of Interview) \_\_\_\_\_

### I. INFORMATION ABOUT THE CHILD

1. Name: \_\_\_\_\_
2. Sex: Female \_\_\_\_\_  
Male \_\_\_\_\_
3. Birthdate: \_\_\_\_\_
4. School child is attending: \_\_\_\_\_
5. Last grade in school child completed: \_\_\_\_\_
6. Has your child ever repeated a grade? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, which grade(s)?

Kindergarten _____	Fourth Grade _____
First Grade _____	Fifth Grade _____
Second Grade _____	Sixth Grade _____
Third Grade _____	

7. Has your child ever been placed in a special room? (e.g., room for learning disabilities or ungraded) Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, what school year or grade?

First Grade _____	Fourth Grade _____
Second Grade _____	Fifth Grade _____
Third Grade _____	Sixth Grade _____

### 8. Schools Attended

- a. Did child attend nursery school? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, at what age did he enter nursery school? \_\_\_\_\_  
(Age)

- b. Did child attend kindergarten? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, at what age did he enter kindergarten? \_\_\_\_\_  
(Age)

- c. Other schools attended:

<u>Name of School</u>	<u>Location</u>	<u>Grades Attended</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Child's Health History

- a. Was the child premature or was the pregnancy of normal length?

Normal-length pregnancy \_\_\_\_\_

Premature birth \_\_\_\_\_

(If premature: Length of pregnancy) \_\_\_\_\_

- b. Was child's delivery normal? Yes \_\_\_\_\_ No \_\_\_\_\_

If no, describe the condition: \_\_\_\_\_

\_\_\_\_\_

- c. Preschool illnesses of the child:

\_\_\_\_\_ No illnesses except minor childhood diseases

\_\_\_\_\_ Child has had one or two illnesses that kept him out of school for a period of more than one week.

Describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ Child has had recurring illnesses leading to frequent absences from school

Describe: \_\_\_\_\_

\_\_\_\_\_

- d. Has your child ever had any speech problems? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, please describe: \_\_\_\_\_

\_\_\_\_\_

- e. Does your child still have speech problems? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, what is being done about the problem? \_\_\_\_\_

\_\_\_\_\_

- f. Does your child wear eyeglasses?

\_\_\_\_\_ No, does not wear eyeglasses

\_\_\_\_\_ Yes, he wears eyeglasses regularly

\_\_\_\_\_ Eyeglasses have been prescribed for child but he does not wear them regularly.

- g. Does your child have normal hearing?

\_\_\_\_\_ Yes, normal hearing in both ears.

\_\_\_\_\_ No, hearing loss in one ear

\_\_\_\_\_ No, hearing loss in both ears.

\_\_\_\_\_ Don't know whether normal or not.

**Parent Interview Form - Page 3**

#### h. Is your child right-handed or left-handed?

\_\_\_\_\_ Right-handed  
 \_\_\_\_\_ Left-handed  
 \_\_\_\_\_ Ambidexterous

How consistent is he? \_\_\_\_\_

Has he ever changed handedness? Yes \_\_\_\_\_ No \_\_\_\_\_

1. Has the child ever shown evidence of lack of coordination or poor motor development? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, describe: \_\_\_\_\_

**1. Family Constellation (Who lives in the home?)**

**Father:**

**Natural Father** \_\_\_\_\_  
**Adoptive Father** \_\_\_\_\_  
**Stepfather** \_\_\_\_\_  
**No Father in** \_\_\_\_\_  
**Home** \_\_\_\_\_

**Mother:**

Natural Mother \_\_\_\_\_  
Adoptive Mother \_\_\_\_\_  
Stepmother \_\_\_\_\_  
No Mother in \_\_\_\_\_  
Home \_\_\_\_\_

**Children in the Family** - (List all the children in the family, including the child in the study, in order of age.)

First Name	Sex	Age
------------	-----	-----

The image shows a document page with 12 horizontal black bars, likely representing redacted text or a placeholder for a table. The bars are evenly spaced and cover the width of the page. There is no visible text or other content on the page.

(NOTE: PLACE A STAR (\*)  
BEFORE NAME OF CHILD IN  
THE STUDY)

k. Does the child have his own bedroom?      Yes      No



1. Child's Friends

List the first names and ages of the child's friends with whom he plays regularly. (Do not include relatives).

If the child plays regularly only with siblings, cousins or other relatives, check here: \_\_\_\_\_

<u>First Name of Child's Friend</u>	<u>Age</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Does your child have any activities out of the home, such as clubs, Scouts, or church? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, what are they? \_\_\_\_\_  
\_\_\_\_\_

Are any languages spoken in the home besides English?  
Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, what? \_\_\_\_\_

II. INFORMATION ABOUT THE PARENTS

a. Age: Father's Age: \_\_\_\_\_ Mother's Age: \_\_\_\_\_

b. Father's Occupation:

Name of business, company, organization or employer: \_\_\_\_\_

(If father is presently unemployed, list employer for longest job held during the past year.)

What kind of business or industry is this? \_\_\_\_\_

(For example, TV and radio manufacturing, retail shoe store, etc.)

What kind of work does father do? \_\_\_\_\_

(For example, civil engineer, stock clerk, machinist, etc.)

Parent Interview Form - Page 5

c. Does mother work?

Yes, full-time \_\_\_\_\_

Yes, part-time \_\_\_\_\_

No \_\_\_\_\_

If Yes:

Name of business, company, organization or employer: \_\_\_\_\_

What kind of business or industry is this? \_\_\_\_\_

What kind of work does the mother do? \_\_\_\_\_

(For example, retail store clerk, typist, secretary, teacher, etc.)

d. Father's Education

Highest grade in school completed by father: \_\_\_\_\_

e. Mother's Education

Highest grade in school completed by mother: \_\_\_\_\_

III. INTERVIEWER: \_\_\_\_\_ (Name) (Following to be completed by interviewer)

a. Which parent was interviewed?

\_\_\_\_\_ Mother

\_\_\_\_\_ Father

\_\_\_\_\_ Both

b. Anyone else present at interview? \_\_\_\_\_

c. Location of child's home:

\_\_\_\_\_ In the town

\_\_\_\_\_ At the edge of the town

\_\_\_\_\_ Outside the town (rural area)

d. Evidence of reading materials in the home:

	<u>Many (4 or more)</u>	<u>Few (1-3)</u>	<u>None</u>
Books	_____	_____	_____
Magazines	_____	_____	_____
Newspapers	_____	_____	_____

# APPENDIX C

RESPONDENT'S NO. \_\_\_\_\_

## SELF-ESTEEM INVENTORY (SEI)

Please mark each statement in the following way:

If the statement describes how you usually feel, put a check (✓) in the column, "Like Me."

If the statement does not describe how you usually feel, put a check (✓) in the column "Not Like Me."

There are no right or wrong answers.

	<u>LIKE ME</u>	<u>NOT LIKE ME</u>
1. I spend a lot of time daydreaming.	_____	_____
2. I'm pretty sure of myself.	_____	_____
3. I often wish I were someone else.	_____	_____
4. I'm easy to like.	_____	_____
5. My parents and I have a lot of fun together.	_____	_____
6. I never worry about anything.	_____	_____
7. I find it very hard to talk in front of the class.	_____	_____
8. I wish I were younger.	_____	_____
9. There are lots of things about myself I'd change if I could.	_____	_____
10. I can make up my mind without too much trouble.	_____	_____
11. I'm a lot of fun to be with.	_____	_____
12. I get upset easily at home.	_____	_____
13. I always do the right thing.	_____	_____
14. I'm proud of my school work.	_____	_____
15. Someone always has to tell me what to do.	_____	_____
16. It takes me a long time to get used to anything new.	_____	_____
17. I'm often sorry for the things I do.	_____	_____
18. I'm popular with kids my own age.	_____	_____
19. My parents usually consider my feelings.	_____	_____
20. I'm never unhappy.	_____	_____
21. I'm doing the best work that I can.	_____	_____

	<u>LIKE ME</u>	<u>NOT LIKE ME</u>
22. I give in very easily.	_____	_____
23. I can usually take care of myself.	_____	_____
24. I'm pretty happy.	_____	_____
25. I would rather play with children younger than me.	_____	_____
26. My parents expect too much of me.	_____	_____
27. I like everyone I know.	_____	_____
28. I like to be called on in class.	_____	_____
29. I understand myself.	_____	_____
30. It's pretty tough to be me.	_____	_____
31. Things are all mixed up in my life.	_____	_____
32. Kids usually follow my ideas.	_____	_____
33. No one pays much attention to me at home.	_____	_____
34. I never get scolded.	_____	_____
35. I'm not doing as well in school as I'd like to.	_____	_____
36. I can make up my mind and stick to it.	_____	_____
37. I really don't like being a boy/girl.	_____	_____
38. I have a low opinion of myself.	_____	_____
39. I don't like to be with other people.	_____	_____
40. There are many times when I'd like to leave home.	_____	_____
41. I'm never shy.	_____	_____
42. I often feel upset in school.	_____	_____
43. I often feel ashamed of myself.	_____	_____
44. I'm not as nice looking as most people.	_____	_____
45. If I have something to say, I usually say it.	_____	_____

	<u>LIKE ME</u>	<u>NOT LIKE ME</u>
46. Kids pick on me often.	_____	_____
47. My parents understand me.	_____	_____
48. I always tell the truth.	_____	_____
49. My teacher makes me feel I'm not good enough.	_____	_____
50. I don't care what happens to me.	_____	_____
51. I'm a failure.	_____	_____
52. I get upset easily when I'm scolded.	_____	_____
53. Most people are better liked than I am.	_____	_____
54. I usually feel as if my parents are pushing me.	_____	_____
55. I always know what to say to people.	_____	_____
56. I often get discouraged in school.	_____	_____
57. Things usually don't bother me.	_____	_____
58. I can't be depended on.	_____	_____

## APPENDIX D

NUMBER:

## SELF CONCEPT

We are all different in the ways we think about ourselves. There is nobody else like you in all the world. What kind of person do you think you are right now? Give a picture of yourself, as you think you are now, by placing a check anywhere on the line between the sentences. Each space tells how well the words agree with how you look at yourself as a person.

**EXAMPLE;**

**I am strong.**

very	:	more	:	more	:	very
strong	:	strong	:	weak	:	weak
	:	than	:	than	:	
	:	weak	:	strong	:	

I am weak.

Look at the words at both ends of the line before you decide where to place your check. Work quickly; mark whatever you feel first, since your first answer is likely to be the best. Just put one check on each line between the sentences. Remember: there are no right or wrong answers --only answers which best show you as a person.

I am happy, most  
of the time.

I am not happy,  
most of the time.

I don't mind changes.

I don't like  
things to change.

I stick up for my rights.

I give up easily.

I think of others.

I think only of myself.

I do well in school work.

I do poorly in school work.

**I am relaxed.**

I am nervous.

I think before I do  
anything.

I stand on my own  
two feet.

I am masculine.

I can wait for things.

I am sure of myself.

I make friends  
easily.

I like people  
as they are.

I can take it  
when people say bad  
things to me.

I trust people.

I am satisfied.

I am kind to people.

I am not afraid of  
things.

I like to work with  
others.

I'm somebody.

I do things  
without thinking.

I go along with the  
gang.

I am feminine.

I want things right  
away.

I am not sure of my-  
self.

I do not make friends  
easily.

I find fault with  
people.

I am easily hurt when  
people say bad things  
to me.

I don't trust  
people.

I feel sorry for  
myself.

I hurt people.

I am afraid of  
things.

I don't like to work  
with others.

I'm nobody.

Did you put a check on each line?

Copyright: Dr. Anthony. T. Soares & Dr. Louise M. Soares, 1967



NUMBER: \_\_\_\_\_

### REFLECTED SELF--CLASSMATES

We are all interested in how other people look at us. How do you think other people look at you? Give a picture of how you think the friends in your classroom look at you as a person, by placing a check any where on each line between the sentences. Each space tells how well the words agree with how you think your friends in the classroom look at you as a person.

EXAMPLE:

My friends think	:	:	:	My friends think
I am strong.	very	more	more	I am weak.
	strong	strong	weak	
	:	than	than	
	:	weak	strong	

Look at the word at both ends of the line before you decide where to place your check. Work quickly; mark whatever you feel first, since your first answer is likely to be the best. Put one check on each line between the sentences. Remember: there are no right or wrong answers -- only answers which best show how you think your classroom friends look at you as a person.

My friends think	:	:	:	My friends think I am
I am a happy person.				not a happy person.
My friends think I	:	:	:	My friends think I
don't mind changes.				don't like things to
				change.
My friends think I	:	:	:	My friends think I give
stick up for my rights.				up easily.
My friends look at me	:	:	:	My friends look at me
as a person who thinks				as a person who thinks
of others.				only of myself.
My friends think I	:	:	:	My friends think I do
do well in school work.				poorly in school work.
My friends think I	:	:	:	My friends think I am
am a relaxed person.				a nervous person.

My friends look at  
me as a person who  
thinks before doing  
anything.

My friends think I  
stand on my own two  
feet.

My friends think I  
am masculine.

My friends think I  
can wait for things.

My friends think I  
am sure of myself.

My friends think I  
make friends easily.

My friends think I  
like people as they  
are.

My friends think I  
can take it when people  
say bad things to me.

My friends think I  
trust people.

My friends think I  
am satisfied.

My friends think I  
am kind to people.

My friends think I'm  
not afraid of things.

My friends think I  
like to work with others.

My friends think I'm  
somebody.

My friends look at me  
as a person who does  
things without thinking.

My friends think I go  
along with the gang.

My friends think I am  
feminine.

My friends think I want  
things right away.

My friends think I'm  
not sure of myself.

My friends think I  
don't make friends  
easily.

My friends think I  
find fault with  
people.

My friends think I am  
easily hurt when people  
say bad things to me.

My friends think I  
don't trust people.

My friends think I feel  
sorry for myself.

My friends think I  
hurt people.

My friends think I'm  
afraid of things.

My friends think I don't  
like to work with others.

My friends think I'm  
nobody.

(Did you put a check on each line?)

Copyright: Dr. Anthony T. Soares & Dr Louise M. Soares, 1967.

Number: \_\_\_\_\_

### REFLECTED SELF--PARENTS

What kind of person do you feel your mother or father thinks you are? Show how you think they look at you as a person by putting a check any place on each line between the sentences. Each line tells how well the words agree with how you think your mother and father look at you as a person.

#### EXAMPLE:

My parents think	:	:	:	My parents think
I am strong.	very	more	more	I am weak.
	strong	strong	weak	
		than	than	
		weak	strong	

Look at the words at both ends of the line before you decide where to place your check. Work quickly; mark whatever you feel first, since your first answer is likely to be the best. Just put one check on each line between the sentences. Remember: there are no right or wrong answers--only answers which best show how you think your parents look at you as a person.

My parents think I'm	:	:	:	My parents think I'm
a happy person.				not a happy person.
My parents think I	:	:	:	My parents think I
don't mind changes.				don't like things to
				change.
My parents think I	:	:	:	My parents think I
stick up for my rights.				give up easily.
My parents look at me	:	:	:	My parents look at me
as a person who thinks				as a person who thinks
of others.				only of myself.
My parents think I	:	:	:	My parents think I do
do well in school work.				poorly in school work.
My parents think I'm	:	:	:	My parents think I'm
a relaxed person.				a nervous person.
My parents look at me	:	:	:	My parents look at me
as a person who thinks				as a person who does
before doing anything.				things without thinking.
My parents think I	:	:	:	My parents think I
stand on my own two				go along with the gang.
feet.				

My parents think I'm  
masculine.

\_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_

My parents think I  
can wait for things.

\_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_

My parents think I  
am sure of myself.

\_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_

My parents think I  
make friends easily.

\_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_

My parents think I  
like people as they are.

\_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_

My parents think I  
can take it when  
people say bad things  
to me.

\_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_

My parents think I  
trust people.

\_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_

My parents think I  
am satisfied.

\_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_

My parents think I'm  
kind to people.

\_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_

My parents think I'm  
not afraid of things.

\_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_

My parents think I  
like to work with others.

\_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_

My parents think I'm  
somebody.

\_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_

My parents think I'm  
feminine.

My parents think I  
want things right away.

My parents think I'm  
not sure of myself.

My parents think I  
don't make friends  
easily.

My parents think I find  
fault with people.

My parents think I'm  
easily hurt when people  
say bad things to me.

My parents think I don't  
trust people.

My parents think I feel  
sorry for myself.

My parents think I hurt  
people.

My parents think I'm  
afraid of things.

My parents think I  
don't like to work with  
others.

My parents think I'm  
nobody.

(Did you put a check on each line?)

Copyright: Dr. Anthony T. Soares , & Dr. Louise M. Soares, 1967.

---

## REFLECTED SELF--TEACHERS

How do you think your teacher looks at you? Give a picture of how you think your teacher looks at you as a person, by placing a check anywhere on each line between the sentences. Each space tells how well the words agree with how you think your teacher looks at you as a person.

**EXAMPLE:**

My teacher thinks  
I am strong.

	:	:	:
very	:	more	more
strong	:	strong	weak
	:	than	than
	:	weak	strong

My teacher thinks  
I am weak.

Look at the words at both ends of the line before you decide where to place your check. Work quickly; mark whatever you feel first, since your first answer is likely to be the best. Put just one check on each line between the sentences. Remember: there are no right or wrong answers which best show how you think your teacher looks at you as a person.

My teachers think I  
am a happy person.

	•			
	•			
			.	
• •	• •			• •

My teachers think I am  
not a happy person.

My teachers think I  
don't mind changes.

Age Group	Male	Female
18-24	1	2
25-34	4	5
35-44	3	4
45-54	2	3
55-64	1	2
65-74	1	2
75+	1	2

My teachers think I don't like things to change.

My teachers think I stick up for my rights.

•

My teachers think I  
give up easily.

My teachers look at me as a person who thinks of others.

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Arar and Collins (1971) using a Shimadzu 1601 UV-Visible Spectrophotometer. The concentration of chlorophyll was expressed in mg/L.

My teachers look at me  
as a person who thinks  
of myself.

My teachers think I do  
do well in school work.

Condition	Control (n=10)	MCI (n=10)	AD (n=10)
1	~95	~85	~75
2	~90	~80	~70
3	~85	~75	~65
4	~85	~75	~65

My teachers think I do  
poorly in school work.

My teachers think I'm  
a relaxed person.

Age Group	Male	Female
18-24	2	1
25-34	1	0
35-44	3	2
45-54	1	0
55-64	0	0
65-74	0	0
75+	2	2

My teachers think I'm  
a nervous person.

My teachers look at me as a person who thinks before doing anything.

Time Point	Control (n=8)	Low-dose (n=7)	High-dose (n=9)
0	8	8	8
1	7	6	6
2	6	5	5
3	5	4	4

My teachers look at me as  
a person who does things  
without thinking.

My teachers think  
I stand on my own  
two feet.

My teachers think  
I am masculine.

My teachers think  
I can wait for  
things.

My teachers think  
I am sure of  
myself.

My teachers think  
I make friends  
easily.

My teachers think  
I like people as  
they are.

My teachers think  
I can take it  
when people say  
bad things to me.

My teachers think  
I trust people.

My teachers think  
I am satisfied.

My teachers think  
I'm kind to people.

My teachers think  
I'm not afraid of  
things.

My teachers think  
I like to work  
with others.

My teachers think  
I'm somebody.

My teachers think I  
go along with the gang.

My teachers think I  
am feminine.

My teachers think I  
want things right away.

My teachers think I'm  
not sure of myself.

My teachers think  
I don't make friends  
easily.

My teachers think  
I find fault with  
people.

My teachers think  
I'm easily hurt when  
people say bad things  
to me.

My teachers think I  
don't trust people.

My teachers think I  
feel sorry for myself.

My teachers think I  
hurt people.

My teachers think I  
am afraid of things.

My teachers think I  
don't like to work with  
others.

My teachers think  
I'm nobody.

(Did you put a check on each line?)

Copyright: Dr. Anthony T. Soares & Dr. Louise M. Soares, 1967.

NUMBER: \_\_\_\_\_

### IDEAL CONCEPT

What kind of person would you like to be if you could change? Give a picture of the kind of person you wish you could be by placing a check any place on the line between the sentences. Each space tells how well you think the show what kind of person you would like to be.

**EXAMPLE:**

I wish I were strong.	:	:	:	I wish I were weak.				
	very	;	more	:	more	:	very	
	strong	:	strong	:	weak	:	weak	
		:	than	:	than	:		
		:	weak	:	strong	:		

Look at the sentences at both ends of the line before you decide where to place your check. Work quickly; mark whatever you feel first, since your first answer is likely to be the best. Put just one check on each line between the sentences. Remember: there are no right or wrong answers--only answers which best show what kind of person you would like to be.

I would like to be a happy person.

\_\_\_\_\_

I would not want to be a happy person.

I would like to be a person who doesn't mind changes.

\_\_\_\_\_

I would like to be a person who doesn't like to change things.

I wish I could stick up for my rights.

\_\_\_\_\_

I wish I could give up easily.

I wish I could think of others.

\_\_\_\_\_

I wish I could think only of myself.

I wish I could do well in school work.

\_\_\_\_\_

I wish I could do poorly in school work.

I wish I were relaxed.

\_\_\_\_\_

I wish I were nervous.

I wish I could think before doing anything.

\_\_\_\_\_

I wish I could do things without thinking.

I wish I could stand on my own two feet.

\_\_\_\_\_

I wish I could go along with the gang.



I would like to  
be a person who  
is masculine.

I wish I could wait for  
things.

I wish I made  
friends easily.

I wish I could  
like people as  
they are.

I wish I could  
take it when people  
say bad things to me.

I would like to  
trust people.

I wish I could be  
satisfied.

I would like to be kind  
to people.

I wish I weren't  
afraid of so many  
things.

I wish I could  
work with others.

I wish I were  
somebody.

I would like to be  
a person who is  
feminine.

I wish I could have  
things right away.

I don't wish I could  
make friends easily.

I wish I could find  
fault with people.

I would rather be hurt  
when people say bad  
things to me.

I wouldn't want to  
trust people.

I wish I could feel  
sorry for myself.

I would like to hurt  
people.

I wish I were afraid  
of more things.

I don't wish I could  
work with others.

I wish I were a nobody.

( Did you put a check on each line? )

Copyright: Dr. Anthony T. Soares & Dr. Louise M. Soares, 1967

APPENDIX E  
A CHILDREN'S BEHAVIOR QUESTIONNAIRE  
APPENDIX  
CHILD SCALE B  
To Be Completed By Teachers

Below are a series of description of behavior often shown by children. After each statement are three columns: "Doesn't Apply", "Applies Somewhat", and "Certainly Applies". If the child definitely shows the behavior described by the statement place a cross on the line under "Certainly Applies." If the child shows the behavior described by the statement but to a lesser degree or less often place a cross on the line under "Applies Somewhat". If, as far as you are aware, the child does not show the behavior place a cross on the line under "Doesn't Apply."

STATEMENT	DOESN'T APPLY	APPLIES SOMEWHAT	CERTAINLY APPLIES	FOR OFFICE USE ONLY
1. Very restless, Often running about jumping up and down. Hardly ever still.....	_____	_____	_____	_____
2. Truants from school .....	_____	_____	_____	_____
3. Squirmy, fidgety child .....	_____	_____	_____	_____
4. Often destroys own or other's belongings .....	_____	_____	_____	_____
5. Frequently fights with other children	_____	_____	_____	_____
6. Not much liked by other children...	_____	_____	_____	_____
7. Often worried, worries about many things	_____	_____	_____	_____
8. Tends to do things on his own-rather solitary....	_____	_____	_____	_____
9. Irritable. Is quick to "fly off the handle" ....	_____	_____	_____	_____
10. Often appears miserable, unhappy, tearful or distressed....	_____	_____	_____	_____
11. Has twitches, mannerisms or tics of the face or body ...	_____	_____	_____	_____
12. Frequently sucks thumb of finger...	_____	_____	_____	_____
13. Frequently bites nails or fingers...	_____	_____	_____	_____
14. Tends to be absent from school for trivial reasons .....	_____	_____	_____	_____
15. Is often disobedient....	_____	_____	_____	_____
16. Has poor concentration or short attention span....	_____	_____	_____	_____
17. Tends to be fearful or afraid of new things or new situations...	_____	_____	_____	_____
18. Fussy or over-particular child ....	_____	_____	_____	_____
19. Often tells lies ....	_____	_____	_____	_____
20. Has stolen things on one or more occasions .....	_____	_____	_____	_____
21. Has wet or soiled self at School this year....	_____	_____	_____	_____
22. Often complains of pains or aches..	_____	_____	_____	_____
23. Has had tears on arrival at school or has refused to come into the building this year....	_____	_____	_____	_____
24. Has other speech difficulty ....	_____	_____	_____	_____
25. Bullies other Children ....	_____	_____	_____	_____

Are there any other problems of behavior ? \_\_\_\_\_

Signature: Mr/Mrs/Miss \_\_\_\_\_

How well do you know this child? Very Well \_\_\_\_\_ Moderately Well \_\_\_\_\_ Not Very Well \_\_\_\_\_

THANK YOU VERY MUCH FOR YOUR HELP

## APPENDIX F

### MASTER OF SCIENCE IN EDUCATION -- READING

The specific requirements are as follows. It should be clear that specific courses of study are worked out by the student in consultation with his adviser.

1. Seminar and Introduction to Research (4 credits). Problems and issues in education are defined and research literature is critically examined in the following courses:

<u>Course Number</u>	<u>Title</u>	<u>Credits</u>
Ed. 640	Introduction to Research	2
Ed. 701	Seminar: Problems in Teaching	2

2. Educational Foundations (3-6 credits). Students may select from the following courses:

Ed. 604	Sociological Foundations of Education	3
Ed. 702	Philosophical Foundations of Education	3
Ed. 703	Psychological Foundations of Education	3

3. Related Courses (6-9 credits). Students may select from the following courses:

Ed. 555	Teaching Emotionally Disturbed Children	3
Ed. 556	Mental Retardation	3
Ed. 557	Education of the Mentally Retarded	1-2
Ed. 600	Individual Studies	3
Ed. 607	Seminar in Child Psychology	3
Ed. 608	Theory and Problems of Adolescent Development	3
Ed. 655	Construction and Use of Classroom Tests	3
Ed. 721	The Exceptional Child	3
Ed. 723	Foundations of Educational Measurement	3
Ed. 724	Individual Intelligence Testing	3
Ed. 741	Principles of Appraisal & Evaluation in Education	3
Ed. 762	Curriculum in the Elementary School	3

4. Reading (12-16 credits).

Ed. 664	Developmental Reading	3
Ed. 666	Corrective Reading	3
Ed. 667	Diagnosis of Reading Difficulties	2-3
Ed. 668	Practicum: Reading Improvement Program*	5-8

\*Prerequisite: Ed. 664, 666 and 667.